LEXSEE 439 F.2D 1237

IN RE JEAN CLEMENT LOUIS FOUCHE

No. 8484

United States Court of Customs and Patent Appeals

58 C.C.P.A. 1086; 439 F.2d 1237; 1971 CCPA LEXIS 366; 169 U.S.P.Q. (BNA) 429

Oral argument March 5, 1971

April 22, 1971

PRIOR HISTORY: [***1]

Appeal from Patent Office, Serial No. 463,936

DISPOSITION:

Modified.

COUNSEL:

John F. Witherspoon, Harold C. Wegner, attorneys of record, for appellant. *Stevens, Davis, Miller & Mosher,* of counsel.

S. Wm. Cochran for the Commissioner of Patents. *Raymond E. Martin, Henry W. Tarring II,* of counsel.

OPINION BY:

LANE

OPINION: [**1238]

[*1087] Before RICH, ALMOND, BALDWIN, LANE, Associate Judges, and RE, Judge, sitting by designation

LANE, Judge, delivered the opinion of the court.

This appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of claims 1-3 in appellant's application serial No. 463,936, filed June 14, 1965, for "Dibenzocycloheptadiene Derivatives." No claims have been allowed. We affirm as to claim 1 and reverse as to claims 2 and 3.

The invention claimed is a class of compounds having pharmaceutical utility due to their antidepressant, neuroleptic and tranquilizing properties. Claim 3 is illustrative of the appealed claims since it is drawn to the compound closest to the prior art of all the compounds within the appealed claims:

3. 10-(3-Dimethylaminopropyl) dibenzo[a, d] cycloheptadiene and its acid addition [***2] salts and quaternary ammonium derivatives.

10-(3-dimethylaminopropyl) dibenzo[aD] cycloheptadiene has the following structural formula:

[Graphic omitted. See illustration in original.]

The first issue to be decided is whether the claims are adequately supported under the first paragraph of *35 USC 112,* specifically, the how-to-make requirement. The instant specification contains no express teaching of how to make 10-(3-dimethylaminopropyl) dibenzo[aD] cycloheptadiene, which is claimed in claim 3 and is a starting material for making other compounds covered by the claims. The specification does, however, state that the compound can be "prepared as described in Example I of our application No. ". No other identification of the

referenced application was given at the time the instant application was filed. Appellant later attempted, by amendment, to change the referring language from "our application No. " to "my Application Serial No. 459,921 filed May 17, 1965." The Patent Office did not assign this serial number to the earlier application until after the instant application was filed.

[*1088] The examiner, while recognizing that a patent applicant may complete [***3] his disclosure, and hence satisfy *35 USC 112,* by reference to an earlier or concurrently filed U.S. application, took the view that the original referring language was defective and hence that the amendment introduced new matter. There is no dispute that the application sought to be incorporated actually contains enough information to complete the instant specification so as to support the appealed claims. The sole issue on the § 112 rejection here is whether the original referring language was adequate to effect an incorporation by reference.

The law on this question is succinctly set forth, and some of the authorities reviewed, in Patent Law Perspectives, § A.5[1][a] (1969-70 Annual Review). After discussion of *Ex parte Harvey, 163 USPQ 572 (P.O. Bd. App. 1968),* in which the board held reference language adequate even though the filing date and serial number were not given, but in [**1239] which the board also suggested that the attorney's docket number should have been used as a means of identification, the authors state:

[It] seems amply clear that an applicant should be permitted to incorporate the disclosure of a copending application whether or not an attorney's [***4] docket number is provided in the referencing application so long as the reference application is sufficiently well identified to distinguish it from all others.

The question to be decided here is, therefore, whether the language "our application No. ," together with the reference to Example I thereof, distinguished the application which later received serial No. 459,921 from all others. If it did, there can of course be no "new matter" problems, since the amendment entering the serial number and filing date would amount to a mere change in wording.

The Patent Office position is that the language in question did not uniquely identify the application sought to be incorporated. Its reasons for this position are:

a. The use of the word "our" would suggest that a joint application was intended, and serial No. 459,921 is a sole application.

b. There is nothing in the referring language which would exclude the possibility that a foreign application was intended.

c. There is nothing in the referring language which would exclude the possibility that a later-to-be-filed application was intended. n1

> n1 [1] The solicitor has also pointed out that the reference language could also have pertained to an already abandoned application. This factor, however, is of little significance, since already-abandoned applications less than twenty years old can be incorporated by reference to the same extent as copending applications. Both types are open to the public upon the referencing application issuing as a patent. (Rule 14(b)).

[***5]

Appellant counters these reasons with the following arguments:

a. The use of the word "our" was an obvious slip of the tongue, arising from the fact that in most countries application for a patent is made in the name of [*1089] the assignee. (Apparently it is customary to refer to a corporate assignee in the plural number.)

b-c. It is unreasonable to conclude that a foreign or later-filed application was intended, since an applicant could obviously derive no benefit, under United States law, from incorporating a foreign or later-filed application by reference.

Appellant further urges that he was led to employ the procedure used here by the Manual of Patent Examining Procedure, § 608.01(p) of which then provided, in part:

If a concurrently or previously filed application of the same inventor adequately discloses the preparation of the starting material, amendments to include reference to such application by serial number and a general method of preparation are proper.

Appellant views this provision as permitting incorporation by reference by amendment even where the originally filed application contained no attempt whatever

to incorporate another application. [***6] He argues that the Patent Office should not be permitted to change its position and apply the new position against him, after he was led astray by its first position. We need not decide the merits of appellant's contention in this regard, since we find the board's decision on the § 112 rejection reversible on the considerations previously mentioned.

[2] While the board was undoubtedly correct in pointing out that appellant could have used a more precise identification technique in referring to the earlier application, and while the solicitor is correct in pointing out that the technique used does not absolutely distinguish the application sought to be referenced from all other possible applications, [**1240] we find that the identification was reasonably precise.

First, there is some merit to appellant's rebuttal arguments, supra, that it would be unreasonable to read the referring language as pertaining to anything but an earlier or concurrently filed United States application.

Second, it is undisputed that, at the time of filing the present application, appellant in fact had on file in the Patent Office an application containing enough information to complete his [***7] disclosure as to the appealed claims. It is therefore clear that he had solved, as of his present filing date, any technical problems involved in making and using the claimed compositions. This is a major consideration in judging compliance with the first paragraph of § 112. See *In re Argoudelis, 58 CCPA 769, 434 F.2d 1390, 168 USPQ 99 (1971),* and especially Judge Baldwin's concurring opinion therein.

Third, application serial No. 459,921 does in fact contain an "Example I" disclosing a method for preparing 10-(3-dimethylaminopropyl) dibenzo[a, d] cycloheptadiene. We note that in *Ex parte Harvey, supra,* the board looked to the nature of the subject [*1090] matter disclosed in the earlier application as one means of linking that application to the referring language.

Fourth, there has been no showing by the Patent Office that there existed any other application to which the referring language could have pertained.

For these reasons we hold that the language employed in the present application adequately incorporated the disclosure of previously filed application serial No. 459,921 by reference and hence that the amendment to specify the serial number and filing date [***8] did not introduce new matter into the specification. In view of the result we have reached on this point, we need not consider appellant's alternative argument that the method of preparing the compounds in question was within the skill of the art and not required for support of the claims.

Obviousness

The board also affirmed the examiner's rejection of all claims as obvious over Villani. n2 In treating this rejection we again select claim 3 as illustrative, since it is drawn to the one compound, of all those covered by the appealed claims; which is closest to the prior act, i.e., to Villani.

n2 Villani et al., "Dialkylaminoalkyl Derivatives of 10,11-Dihydro-5H-dibenzo[a, d] cycloheptene and Related Compounds," Journal of Med. & Pharm. Chem., vol. 5, pp. 373-83 (1962).

It will be recalled that the structural formula of the principal compound claimed in claim 3 is

[Graphic omitted. See illustration in original.]

Villani discloses two series of 5-aliphatic substituted derivatives of dibenzo[a, d] cycloheptadiene, one series being saturated and the other unsaturated. As a specific member of the saturated series, Villani discloses an isomer of the above compound [***9] of claim 3. The structure of the isomer is

[Graphic omitted. See illustration in original.]

[*1091] As a specific member of the unsaturated series, Villani discloses a compound, known commercially as amitriptyline, having the following structure:

[Graphic omitted. See illustration in original.] [**1241]

It will be noted that in the isomer the dimethylamino group is attached to the cycloheptadiene ring through a CH(2) group, by a single bond, and hence is saturated in the same sense that the claimed compound is saturated; in amitriptyline the dimethylamino group is attached to the ring through a CH group, by a double bond, and hence is unsaturated in that sense. Villani discloses that each

series of compounds has medicinal properties related to the central nervous system.

It was the view of the examiner that the disclosure by Villani of the 5-substituted isomer of the claimed 10-substituted compound rendered the claimed compound obvious, "since appellant has failed to establish that the claimed isomeric compound possesses any unexpected properties over" the 5-position isomer of Villani.

Appellant sought to establish unobviousness via the unexpectedly-superior-property [***10] route. He cited the Provita reference, n3 which, like Villani, discloses both a saturated series including the isomer of the claimed compound and an unsaturated series including amitriptyline.

> n3 Protiva et al., "A New Group of Tranquillizers: Derivatives of 2,3:6,7-Dibenzosuberane and 2,3:6,7-Dibenzo-4-suberene," Journal of Med. and Pharm. Chem., vol. 4, pp. 411-15 (1961).

Protiva indicates that certain of the unsaturated compounds are better tranquilizers than the saturated ones. Protiva also states that "Aminoalkyl derivatives with a saturated side chain * * * are less interesting in regard to tranquillizing activity."

Appellant's argument then returned to Villani, who discloses that, with respect to behavioral effects, the unsaturated compounds are more active than the saturated ones, and that amitriptyline is the best of the latter group.

Appellant introduced an affidavit of a chemist indicating that a comparative test of the claimed compound and amitriptyline revealed that the claimed compound was about 1.7 times as active as amitriptyline in terms of certain effects on the central nervous system of rats. Appellant presented no evidence directly comparing the [***11] claimed compound and the isomer.

[*1092] Appellant's position involves a kind of indirect showing of unexpected superiority. He contended that the statements in Protiva and Villani indicate that the unsaturated derivatives are more active than the saturated ones, and his evidence showed that the claimed compound was more active than the best of the unsaturated derivatives; ergo, it is unexpectedly better than the saturated derivatives, such as the 5-position isomer, disclosed in Villani.

The examiner and the board found appellant's evidence and argument unpersuasive. The board held that "The comparative affidavit * * * does not demonstrate that a claimed product exhibits any property different from that exhibited by the structurally most closely related reference compound, the isomeric compound." While it did not say that a direct comparative showing was necessarily required, the board held that the evidence adduced was not "clear and convincing," because the statements of Villani and Protiva are general in nature, pertaining to activity on the central nervous system, and are not comparable to the specific property tested and reported in the affidavit, i.e., antidepressant [***12] activity in rats. The board noted that the affidavit did not set forth any comparative information on toxicity, apparently suggesting that the statements of "superiority" in Villani and Protiva could have pertained to low toxicity as well as to high activity.

It is our conclusion that appellant's evidence was sufficient to establish unobviousness of the claimed compound. We think the teachings of Protiva and Villani, while broad, were of such a nature as to lead away from the saturated 10-position isomer of claim 3 as a tranquilizer. We note especially the above-quoted statement of Protiva [**1242] that "Aminoalkyl derivatives with a saturated side chain * * * are less interesting in regard to tranquilizing activity." This, coupled with the facts that in the claimed compound the dimethylaminopropyl radical is substituted on the opposite side of the cycloheptadiene ring from the 5 position and has better antidepressant activity in laboratory animals than the best unsaturated prior art compound, lead us to conclude that the compound was unobvious.

Sufficiency of Disclosure - Markush Group

The board also affirmed the examiner's rejection of claim 1 on the ground of insufficient [***13] disclosure, *35 USC 112*, first paragraph. The solicitor indicates, as the examiner and the board unfortunately did not, that the insufficiency is with regard to the how-to-make and how-to-use provisions of that paragraph. We find that the issue of compliance with the how-to-use provision was fairly raised by the examiner's remarks in the final rejection and the examiner's answer. [*1093] Since we

agree with the Patent Office on the how-to-use question, we shall not consider any possible how-to-make issue.

Claim 1 reads:

1. A dibenzo [a, d] cycloheptadiene derivative of the formula:

[Graphic omitted. See illustration in original.]

and its acid addition salts and quaternary ammonium derivatives in which A is a divalent, saturated aliphatic hydrocarbon chain of 2 to 5 carbon atoms, such that at least 2 carbon atoms separate the radical Z from the dibenzocycloheptadiene ring, and Z is a member selected from the group consisting of amino, monoalkylamino, dialkylamino, in which the alkyl radicals contain 1 to 5 carbon atoms each, and 1-pyrrolidinyl, piperidino, morpholino, 1-piperazinyl, and 4-alkyl-1-piperazinyl in which the alkyl radical contains 1 to 5 carbon atoms, [***14] and such rings substituted by at least one alkyl radical of 1 to 5 carbon atoms each.

The examiner's view was that the specification was inadequate to enable one skilled in the art to use the broad invention defined by claim 1, although he apparently agreed that it was adequate to enable the use of some species within the claim. We observe that the Patent Office proceedings in this case occurred before our decisions last term on "undue breadth," e.g., *In re Borkowski, 57 CCPA 946, 422 F.2d 904, 164 USPQ 642 (1970),* yet the examiner saw the problem as one of lack of support under the first paragraph of § 112. The examiner noted that the definition of Z in the claim was by a Markush group including both aliphatic and heterocyclic members. His position was that the specification did not enable the use of those compounds within the claim having heterocyclic moieties.

[3] Both the examiner and the board noted that none of the working examples pertained to compounds wherein Z was heterocyclic. Appellant is quite correct in contending that, under our decisions in *In re Robins, 57 CCPA 1321, 429 F.2d 452, 166 USPQ 552 (1970),* the inclusion of representative examples is not required [***15] to enable a person skilled in the art to use a generic invention. Nevertheless, an applicant must use some technique of providing teaching of how to use which is commensurate with the breadth of protection sought by the claim, unless such knowledge is already available to persons skilled in the art.

It seems clear, and it is not disputed by appellant, that where an applicant undertakes to define his invention by the recitation of a Markush group, he must enable one skilled in the art to make and use at least one composition employing each member of the Markush [*1094] group. The examiner and the board did not believe that appellant had done so as to the heterocyclic members of the group. While they noted the absence of examples using heterocyclic moieties, we [**1243] do not find that they viewed examples as mandatory. The issue before us is whether appellant has provided any teaching of how to use compounds containing the heterocyclic members of the Markush group.

The only reference to heterocyclic radicals in the specification is the statement that "the invention provides" compounds of the structure shown in claim 1, wherein Z may be, among other possibilities, [***16]

a mononuclear, nitrogen-containing heterocycle connected to the chain A by the nitrogen atom, and optionally containing an oxygen, sulphur, or second nitrogen atom in the ring and optionally substituted by one or more alkyl radicals containing 1 to 5 carbon atoms each, such as 1-pyrrolidyl, piperidino, morpholino, 1-piperazinyl, or 4-alkyl-1-piperazinyl.

There later appear statements that the compositions of the invention may be used "for therapeutic purposes" and may be administered orally, rectally or parenterally.

[4] It appears that the examiner and the board doubted that compositions having heterocyclic moieties would be useful at all for therapeutic purposes. While this position could have led to a rejection under § 101, it also leads to a rejection under the how-to-use provision of § 112, since if such compositions are in fact useless, appellant's specification cannot have taught how to use them.

[5] We find that these doubts of the Patent Office were reasonable under the circumstances. We particularly note the following passage from the board's opinion:

The products herein are alleged to exhibit several different properties. It is not to be expected that [***17] the heterocyclic compounds claimed will necessarily exhibit the same properties as those of the exemplified open chain amines. With respect to the rejection on Villani et al., appellant relies upon the Ducrot affidavit in

this record to demonstrate significant differences in properties varying with structural variations. Protiva et al., cited by appellant, demonstrates that heterocyclic substituents cause variations in properties of the same order of magnitude as those in said affidavit.

Accordingly, the burden was on appellant to show that his teaching of using such compositions for therapeutic purposes was true. See In re Cook, No. 8446, decided April 8, 1971; In re Marzocchi, No. 8431, decided April 15, 1971.

[6] Appellant, in seeking to carry this burden, urges that all the claimed compositions have some therapeutic utility, even if not to the same degree as the preferred compositions. If this is so, appellant will have overcome the how-to-use rejection, since we know of no requirement in § 112 that all the compositions within a claim have to have the same degree of utility, although the board's language may have [*1095] suggested the contrary. Appellant's urging [***18] on this point is not supported by the record. We find no evidence overcoming the reasonable doubts of the Patent Office that compositions within the claim having heterocyclic moieties can be used for therapeutic purposes. Accordingly, the board's decision affirming the rejection of claim 1 is affirmed.

Summary

The decision of the board is affirmed as to claim 1 and reversed as to claims 2 and 3.